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securing steadiness in the financial condition of a Savings' Bank. First, that the expenses of management be limited to an amount, compounded of a fixed sum and a per centage on the invested capital; and (as a necessary consequence of such a rule) that the actuary's salary (which forms a large portion of those expenses) be regulated upon the same principle. This method will not only promote the principal end, but also will be found far more satisfactory than the common mode of extending salaries in an irregular and capricious manner. Secondly; that the sum allowed to remain in the treasurer's hands be limited to a per centage on the invested capital, in addition to the management fund. It is usual to fix by the rules an absolute limit, whence it has frequently happened, that the gradual enlargement of business has rendered that limit inapplicable, and the whole has been left to the treasurer's discretion. Hitherto such a practice has been attended with no other effect than to diminish the surplus fund; but managers should now be aware that altered circumstances require such a cause of diminished profit to be restricted within narrow bounds.*

I submit that, by a due attention to the principles illustrated in this paper, managers of Savings' Banks will be enabled to fulfil their duties satisfactorily; and with justice both to the officers and the depositors.

Tables of Accidents brought to the Stockport Infirmary, and attended by the House-Surgeon, in the Years 1833, 1834 and 1835. By SAMUEL GASKELL, Esq., formerly House-Surgeon to the Institution.

[Read before the Statistical Section of the British Association at York, September 27th, 1844.]

THE interest which has been excited with regard to the number and severity of accidents occurring in different trades, may render the results of a careful registry kept for some time in the above infirmary worthy of present publication. The population of Stockport, in 1831 and in 1841, was as follows:—

Townships.	1831	1841
Stockport	25,469	28,419
Brinnington	3,987	5,331
Heaton Norris	11,238	14,626
Total	40,694	48,376

From the very limited data which I possess for making any estimate of the number of persons employed, as compared with those unemployed. I should think it to be about 10,000, chiefly factory operatives; which number is stated, however, only as an approximation.

Between August 1833 and May 1835, 569 Accident Patients were brought to the Stockport Infirmary, in whom the cause and nature of the injury were recorded.

326 not in factories:	243 in factories:
237 men.	155 men.
89 women.	88 women.

* I am of opinion that the affairs of a Bank need reformation if it be found that the management expenses exceed $80 + \cdot 00225 h$, or the treasurer's balance is on an average greater than $f + \cdot 0075 h$.

243 Accidents in Factories :—55 Males, 88 Females.

MALES.	FEMALES.
92 lacerations :	53 lacerations :
56 lacerations of the finger & thumb.	33 lacerations of fingers & thumbs.
15 lacerations of the hand.	6 lacerations of the hand.
7 lacerations of the arm.	9 lacerations of the arm.
7 lacerations of the scalp.	5 various.
4 lacerations of the face.	14 fractures :
1 laceration of the thigh.	10 compound fracture of finger.
1 laceration of the knee.	1 compound fracture of wrist.
1 laceration of the scrotum.	1 simple fracture of arm.
28 fractures :	1 simple fracture of tibia.
2 simple fracture of finger.	1 compound fracture of leg and thigh.
14 compound fracture of finger.	13 contusions.
1 compound fracture of wrist.	8 sundry injuries.
6 simple fracture of arm.	—
1 simple fracture of tibia.	88
1 compound fracture of ankle.	
1 compound fracture of cranium.	
2 not stated.	
16 contusions.	
19 sundry injuries.	

155

326 Accidents not in Factories :—237 Males, 89 Females.

MALES.	FEMALES.
86 contusions.	34 contusions.
43 fractures :	14 fractures :
1 base of skull.	1 compound fracture of finger.
1 fractured skull.	7 fractured arms.
5 compound fracture of finger.	3 fractured clavicles.
3 fractured metacarpal bones.	1 fractured fibula.
12 fractured arms.	2 not stated.
10 fractured clavicles.	11 lacerations (4 of them of the scalp.)
1 fractured tibia.	6 scalds.
4 fractured thighs.	5 burns.
1 fractured ankle.	19 sundry injuries.
1 fractured toes.	—
1 fractured ribs.	89
3 not stated.	
42 lacerations (14 of them of the scalp.)	
12 incised wounds.	
7 scalds.	
5 burns.	
5 dislocations.	
37 sundry injuries.	

237

A Table showing the manner in which the Accidents to Males (155 in number) occurred ; the parts of the machinery inflicting the injury, and the nature of the injury received.

14 caught by the straps :	3 caught by the shaft.
2 lacerated scalp.	3 caught between the rollers :
2 lacerated knees.	1 compound fracture of fingers.
3 lacerated fingers.	1 lacerated hand.
3 fractures of the fore arm.	1 not defined.
1 contusion.	2 caught by the taker in :
3 injuries of the finger.	1 lacerated finger.
4 caught whilst feeding :	1 lacerated hand.
2 lacerated fingers.	2 caught by the cards :
1 compound fracture of the finger.	1 lacerated hand.
1 fractured arm.	1 lacerated hand.

- 2 caught by the grinder:
 - 1 compound fracture of the thumb.
 - 1 contusion of the arm.
- 30 caught by the wheels:
 - 18 lacerated fingers.
 - 1 simple fracture of the finger.
 - 3 compound fractures of the finger
 - 2 lacerated hand.
 - 1 lacerated arm.
 - 1 lacerated lip.
 - 1 compound fracture of the skull.
 - 1 lacerated scrotum.
 - 1 contusion of the foot.
 - 1 not recorded.
- 2 caught by the callender:
 - 1 lacerated hand.
 - 1 lacerated finger and thumb.
- 2 caught by the trappets:
 - 1 lacerated hand.
 - 1 lacerated hand.
- 31 caught in various ways:
 - 13 lacerated finger.
 - 1 lacerated hand.
 - 6 lacerated arm.
 - 1 lacerated scalp.
 - 5 compound fractures of fingers.
 - 1 simple fracture of the finger.
 - 1 contusion of the wrist.
 - 1 contusion of the knee.
 - 2 unknown.

- 2 caught by the cylinder:
 - 1 compound fracture of the wrist.
 - 1 lacerated finger.
- 31 caught whilst cleaning:
 - 19 lacerated fingers.
 - 1 lacerated arm.
 - 1 laceration of the face.
 - 1 laceration of the scalp.
 - 2 contusions of the hand.
 - 2 compound fractures of the finger.
 - 1 fracture of the fore arm.
 - 1 compound dislocation of the ankle joint.
 - 3 not recorded.
- 27 injuries received in various ways:
 - 2 lacerated fingers.
 - 1 compound fracture of the finger.
 - 6 contusions.
 - 6 wounds of the hands and face.
 - 2 punctured wounds of the feet.
 - 2 fractured arm.
 - 1 dislocated elbow.
 - 1 sprain.
 - 1 abrasion of the arm.
 - 1 fractured tibia.
 - 1 lacerated thigh.
 - 3 not stated.

155

A Table showing the manner in which the Accidents to Females (88 in number) occurred; the parts of the machinery inflicting the injury, and the nature of the injury,

- 4 caught by the straps:
 - 1 lacerated finger.
 - 1 contusion of arm.
 - 1 contusion of hand.
 - 1 laceration and contusion.
- 21 caught in various ways:
 - 4 lacerated fingers.
 - 2 compound fractures of the fingers.
 - 1 contusion of the finger.
 - 3 lacerated hand.
 - 1 fracture of the wrist.
 - 1 fracture of the ulna.
 - 2 laceration of the arm.
 - 1 contusion of the thumb.
 - 1 contusion of the foot.
 - 1 laceration of the foot.
 - 3 undefined.
 - 1 contusion of the arm.
- 19 caught by the wheels:
 - 10 lacerated fingers.
 - 4 compound fractures of the fingers.

- 3 lacerated arm.
- 2 undefined.
- 29 caught whilst cleaning:
 - 17 lacerated fingers.
 - 4 compound fractures of the finger.
 - 3 lacerated hand.
 - 2 lacerated arm.
 - 3 undefined.
- 15 injured in various ways:
 - 1 lacerated fingers.
 - 2 contusion of the hand.
 - 2 lacerated arm.
 - 2 contusion of arm.
 - 1 compound fracture of the leg.
 - 1 simple fracture tibia and fibula.
 - 2 contusion of the foot.
 - 2 wounds of the eye by the shuttle.
 - 2 undefined.

88

Table showing the Occupations of those to whom Accidents occurred in Factories.

	Males.	Females.		Males.	Females.
Piecers . . .	24	..	Carders . . .	17	6
Tenters . . .	15	35	Strippers . . .	7	..
Weavers . . .	19	21	Feeders . . .	7	3

	Males.	Females.		Males.	Females.
Doffers . .	3	..	Grinders . .	2	..
Roller Camers. .	2	..	Winders	2
Dressers . .	2	..	Sundries . .	41	14
Cleaners . .	5	..			
Blowers . .	4	..	Total	155	88
Spinners . .	7	7			

Ages of the Patients the Accidents to whom occurred in Factories.

MALES.—Accidents.		FEMALES.—Accidents.	
Of 5 years 1	Of 20 years 4	Of 3 years 1	Of 20 years 4
7 ,, 1	to	6 ,, 1	to
8 ,, 3	25 ,, 14	8 ,, 1	25 ,, 6
9 ,, 5	to	9 ,, 1	to
10 ,, 12	30 ,, 5	10 ,, 2	30 ,, 4
11 ,, 15	to	11 ,, 10	to
12 ,, 12	35 ,, 2	12 ,, 14	35 ,, 2
13 ,, 14	to	13 ,, 5	to
14 ,, 18	40 ,, 2	14 ,, 13	40 ,, 2
15 ,, 8	to	15 ,, 2	Upwards 4
16 ,, 11	45 ,, 4	16 ,, 4	
17 ,, 3	to	17 ,, 3	88
18 ,, 11	50 ,, 2	18 ,, 7	
19 ,, 4	Upwards 4	19 ,, 2	
	155		

Table of Accidents not occurring in Factories, showing the proportion employed in Factories.

MALES.	FEMALES.
63 employed in factories.	30 employed in factories.
116 not employed in factories.	21 not employed in factories.
58 no occupation.	37 no occupation.
237	88

Nature of Injuries in Males.

5 incised wounds.	7 injuries to the eye.
26 contusions.	18 fractures.
6 undefined.	2 strain.
2 injuries to the eye.	6 incised wounds.
4 scalp wounds.	3 scalds.
2 dislocations.	3 compound fractures.
2 burns.	7 scalp wounds.
5 fractures.	13 lacerations.
9 lacerations.	43 contusions.
1 compound fracture.	4 dislocations.
1 abrasion.	10 various injuries.
36 employed in factories.	116 not employed in factories.

Ages of those (Males only) to whom Accidents occurred, not in Factories, but to parties employed in Factories.

Of 9 years of age 3 accidents.	Of 19 years of age 5 accidents.
10 ,, 4 ,,	21 ,, 3 ,,
11 ,, 3 ,,	22 ,, 2 ,,
12 ,, 4 ,,	24 ,, 1 accident.
13 ,, 6 ,,	26 ,, 1 ,,
14 ,, 6 ,,	29 ,, 2 accidents.
15 ,, 6 ,,	Upwards 10 ,,
16 ,, 5 ,,	
17 ,, 1 accident.	Total . 63
18 ,, 1 ,,	

Table of Accident Out-patients relieved in the Manchester Royal Infirmary.

	Caused by Machinery.	From various other causes.
1839	490	2057
1840	590	2428
1841	814	2537
1842	962	2426

STATE OF THE PUBLIC HEALTH IN THE LAST QUARTER.

"The quarterly returns are obtained from 115 districts, sub-divided into 576 Sub-districts. *Thirty-four* districts are placed under the metropolis, and the remaining 81 districts comprise, with some agricultural districts, the principal towns and cities of England. The population was 6,578,912 in 1841."

40,729 deaths were registered in the quarter ending June 30th, 1845, which is 1,235 more deaths than were registered on an average in the corresponding quarters of five previous years. The increase of deaths is not, however, in proportion to the probable increase of the population. After the necessary correction, the mortality of the Spring Quarter is somewhat below the average.

Small-pox has prevailed epidemically in many districts; and the mortality from that disease has been considerable among children unprotected by vaccination. Several persons said to have been previously vaccinated, and one who had been inoculated, also died of small-pox. In many districts no deaths from small-pox occurred; in others the disease was introduced by migratory labourers, ill-provided probably with household comforts and conveniences. The neglect of vaccination is adverted to by several Registrars. The Registrar of *Leicester* says, "I have registered *fifty deaths* by small-pox from January 1st to June 30th, 1845; only *one* of the fifty persons had been vaccinated, and that was a doubtful case." The Registrar of *Heaton Norris, Stockport*, mentions that, "in one family, three infants, two sisters and a brother, all died of small-pox in the short space of eleven days." "Small-pox," observes the Registrar of *Great Marlow, Wycombe*, "has appeared in part of my district. I find on inquiry that a vast number of parents have not availed themselves of vaccination, although perfectly aware that it can be done free of expense." The number of deaths (143) in the Northern Sub-district of *Yarmouth* is much above the average, in consequence of the "prevalence of small-pox, which has proved fatal in 62 cases. Of this number 61 died without previous vaccination. One case only is recorded in which vaccination is said to have been performed; a midwife was the operator, and the patient was attended by an old woman. The child was two months old." *Measles* and *Scarlatina* have been epidemic in several districts.

The 11,267 deaths in the Metropolis are near the average of the season, if we allow for the increase of the population. The weekly deaths fell progressively in the quarter from 884 to 756, as the temperature rose. The deaths from *Small-pox* were 246—less by 235 than were registered in the previous quarter, but 102 above the average of the June quarter for five previous years. *One hundred and four* women died from childbirth in the metropolis within three months!

Districts in which the Mortality was ABOVE the average of five June quarters:— West, North, East, and South Districts of the Metropolis; Winchester, Northampton, Colchester, Ipswich, Yarmouth, Dorchester, Plymouth, Kidderminster, Dudley, Wolverhampton, Birmingham, Leicester, West Derby (adjoining Liverpool), Blackburn, Rochdale, Chorlton, Ashton, Bradford, Leeds, Merthyr Tydfil, Holywell, and Anglesey.

Districts in which the Mortality was BELOW the average of five June quarters:— Central District of the Metropolis, Devizes, Redruth, Penzance, Bristol, Hereford, Shrewsbury, Macclesfield, Liverpool, Preston, Bury, Wigan, Prescott, Sunderland, Tynemouth, Newcastle-on-Tyne, Kendal, Wrexham.

The mean temperature at Greenwich was 51° 9, which is 1° 1 below the average of the season. The north and north-east winds prevailing, the temperature of the whole month of May was below the average; but the wind turning south-west, the temperature of June rose above the average of the month. The fall of rain was nearly 5 inches (4° 8). At Derby more than 8 inches of rain fell in the same time.